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Exhibit P-40, Budget Line Item Justification: PB 2017 Air Force										Date: February 2016		
Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 6: Space Programs							P-1 Line Item Number / Title: 836720 / Space Based Ir Sensor Pgm Space					
ID Code (A=Service Ready, B=Not Service Ready): A				Program Elements for Code B Items: N/A				Other Related Program Elements: 0604441F				
Line Item MDAP/MAIS Code: 210			Item MDAP/MAIS Code(s): N/A									
Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	144.281	31.293	-	-	-	-	-	-	-	-	-	175.574
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	144.281	31.293	-	-	-	-	-	-	-	-	-	175.574
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	144.281	31.293	-	-	-	-	-	-	-	-	-	175.574
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
<p>Description:</p> <p>Note 1: In the FY16 Consolidated Appropriations Act, selected space programs funded with Other Procurement, Air Force (OPAF) were transferred to Space Procurement, Air Force (SPAF) in FY16 and beyond. This exhibit will display values for FY15 and prior; funding for FY16 and beyond are displayed in SPAF. Total 3080/3021 procurement funding is \$380.320M.</p> <p>This exhibit will display values in "Prior Years, PY, and Total (for 3080)" only; FY16 and beyond is displayed in the corresponding SPAF/3021 exhibits.</p> <p>Note 2: The flyaway unit cost is not included on the P-40 exhibit because there are multiple P-5 Cost Analysis exhibits.</p> <p>The Space-Based Infrared System (SBIRS) consolidates national and DOD infrared detection systems into a single overarching architecture that fulfills the nation's security needs in the areas of missile warning, missile defense, technical intelligence and battlespace awareness. SBIRS enables global, simultaneous surveillance, tracking and targeting of multiple targets in multiple areas of responsibility, and surveillance of infrared sources of operational, intelligence or national significance. SBIRS consists of Defense Support Program (DSP) satellites, satellites in Geosynchronous Earth Orbit (GEO), payloads hosted on Highly Elliptical Orbit (HEO) satellites, an integrated centralized Mission Control Station (MCS), full MCS backup, and relay and mobile ground stations. Development funding is in RDT&E AF Program Element 0604441F, SBIRS High. Production funding for SBIRS satellites is in MPAF and SPAF PE 0305915F.</p> <p>1. SBIRS MOBILE AND FIXED SITE COMMUNICATIONS/ELECTRONIC Upgrades: This effort procures DSP and SBIRS assets to maintain the Data Processing Sub-System. Fixed site examples include, but are not limited to, legacy receiver, antenna drive system, Spacecraft Simulator RF, MCS display, Rapid Delog (instantaneous translation of computer data to a human-readable format), Sybase database obsolescence, communications and network routers, and switches and time server replacements. Mobile system examples include, but are not limited to, aging radio frequency communications equipment, aging antenna equipment, aging electrical equipment and cabling, and unsupportable data processing subsystem components. Funding for this effort is in program element 0305915F.</p> <p>2. SBIRS High-Altitude Electromagnetic Pulse (HEMP): This effort provides for upgrades, hardness assurance and verification testing, to gain and maintain USSTRATCOM certification. AFSPC HEMP program supports the USSTRATCOM Integrated Nuclear Survivable and Endurable Report (INSER) to the Joint Staff, Secretary of Defense, and Congress. Funding was provided in FY15 only.</p> <p>3. SBIRS SURVIVABLE ENDURABLE EVOLUTION (S2E2): The S2E2 effort recapitalizes the DSP Mobile Ground System (MGS) DSP Mobile Ground Terminals with SBIRS Mobile Ground Terminals (SMGT). The MGS is the only US Survivable and Endurable (S/E) Tactical Warning and Attack Assessment (TW/AA) system (S/E TW/AA). It is the critical Situation Monitoring element in three national-level architectures: Integrated TW/AA System, Chairman, Joint Chiefs of Staff (CJCS) Critical Nodes, and Nuclear Command and Control System (NCCS). USSTRATCOM needs AFSPCs global S/E TW/AA operational capabilities</p>												

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Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 6: Space Programs		P-1 Line Item Number / Title: 836720 / Space Based Ir Sensor Pgm Space
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604441F
Line Item MDAP/MAIS Code: 210	Item MDAP/MAIS Code(s): N/A	
<p>to meet President of the United States, Joint Staff, Combatant Commander and Forward User (FU) requirements for continuous, persistent, and enduring TW/AA non-imaging infrared (NIR) for Missile Warning and static events, and Nuclear Detonation (NUDET) detection and reporting across all phases of military operations. The current MGS can only process DSP data for strategic Missile Warning and NUDET detection. This effort will address long-standing obsolescence/supportability concerns of the MGS and enable the MGS to process SBIRS and DSP satellite data. Training software, spares and integration of Universal Ground NDS Terminals (UGNTs) are included. The shelters will also be upgraded for increased protection from high altitude electromagnetic pulse (HEMP) per MIL-STD-188-125-2. Funding for this effort is in program element 0305915F.</p>		

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Appropriation / Budget Activity / Budget Sub Activity: 3080F: Other Procurement, Air Force / BA 03: Electronics and Telecommunications Equip / BSA 6: Space Programs	P-1 Line Item Number / Title: 836720 / Space Based Ir Sensor Pgm Space
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604441F
Line Item MDAP/MAIS Code: 210	Item MDAP/MAIS Code(s): N/A	

Exhibits Schedule				Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	SBIRS Mobile System & Fixed Comm Electronics Upgrades		A	7 / 20.447	1 / 5.193	- / -	- / -	- / -	- / -
P-5	SBIRS Survivable Endurable Evolution (S2E2)	P-5a, P-21	A	2 / 123.834	1 / 26.100	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 144.281	- / 31.293	- / -	- / -	- / -	- / -

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	SBIRS Mobile System & Fixed Comm Electronics Upgrades		A	- / -	- / -	- / -	- / -	- / -	8 / 25.640
P-5	SBIRS Survivable Endurable Evolution (S2E2)	P-5a, P-21	A	- / -	- / -	- / -	- / -	- / -	3 / 149.934
P-40	Total Gross/Weapon System Cost			- / -	- / -	- / -	- / -	- / -	- / 175.574

*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.

Justification:
N/A

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Exhibit P-5, Cost Analysis: PB 2017 Air Force								Date: February 2016										
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 6				P-1 Line Item Number / Title: 836720 / Space Based Ir Sensor Pgm Space					Item Number / Title [DODIC]: - / SBIRS Mobile System & Fixed Comm Electronics Upgrades									
ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:											
Resource Summary		Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total					
Procurement Quantity (Units in Each)		7	1	-	-	-	-	-	-	-	-	-	8					
Gross/Weapon System Cost (\$ in Millions)		20.447	5.193	-	-	-	-	-	-	-	-	-	25.640					
Less PY Advance Procurement (\$ in Millions)		-	-	-	-	-	-	-	-	-	-	-	-					
Net Procurement (P-1) (\$ in Millions)		20.447	5.193	-	-	-	-	-	-	-	-	-	25.640					
Plus CY Advance Procurement (\$ in Millions)		-	-	-	-	-	-	-	-	-	-	-	-					
Total Obligation Authority (\$ in Millions)		20.447	5.193	-	-	-	-	-	-	-	-	-	25.640					
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																		
Initial Spares (\$ in Millions)		-	-	-	-	-	-	-	-	-	-	-	-					
Gross/Weapon System Unit Cost (\$ in Millions)		2.921	5.193	-	-	-	-	-	-	-	-	-	3.205					
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - SBIRS Mobile System Cost																		
Recurring Cost																		
1. SBIRS Mobile Systems & Fixed Site Comm Electronics Upgrades	-	-	20.447	5.193	1	5.193	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	20.447	-	-	5.193	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - SBIRS Mobile System Cost	-	-	20.447	-	-	5.193	-	-	-	-	-	-	-	-	-	-	-	-
Support - SBIRS Mobile System Cost																		
Other Support	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - SBIRS Mobile System Cost	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	2.921	7	20.447	5.193	1	5.193	-	-	-	-	-	-	-	-	-	-	-	-
Cost Elements	FY 2018			FY 2019			FY 2020			FY 2021			To Complete			Total Cost		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - SBIRS Mobile System Cost																		
Recurring Cost																		

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Exhibit P-5, Cost Analysis: PB 2017 Air Force														Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 6							P-1 Line Item Number / Title: 836720 / Space Based Ir Sensor Pgm Space							Item Number / Title [DODIC]: - / SBIRS Mobile System & Fixed Comm Electronics Upgrades				
ID Code (A=Service Ready, B=Not Service Ready) : A										MDAP/MAIS Code:								
Cost Elements	FY 2018			FY 2019			FY 2020			FY 2021			To Complete			Total Cost		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
1. SBIRS Mobile Systems & Fixed Site Comm Electronics Upgrades	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.640	1	25.640
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.640
<i>Subtotal: Hardware - SBIRS Mobile System Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.640
Support - SBIRS Mobile System Cost																		
Other Support	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - SBIRS Mobile System Cost</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.205	8	25.640
Remarks: Note 1: Starting in FY16 funding has been re-categorized from Other Procurement (3080) to Space Procurement Air Force (SPAF/3021). Note 2: FY15 funding provides for HEMP site upgrades and testing requirements at Survivable Mission Control Station (SMCS) at Buckley.																		

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Exhibit P-5, Cost Analysis: PB 2017 Air Force								Date: February 2016										
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 6				P-1 Line Item Number / Title: 836720 / Space Based Ir Sensor Pgm Space						Item Number / Title [DODIC]: - / SBIRS Survivable Endurable Evolution (S2E2)								
ID Code (A=Service Ready, B=Not Service Ready) : A							MDAP/MAIS Code:											
Resource Summary		Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total					
Procurement Quantity (Units in Each)		2	1	-	-	-	-	-	-	-	-	-	3					
Gross/Weapon System Cost (\$ in Millions)		123.834	26.100	-	-	-	-	-	-	-	-	-	149.934					
Less PY Advance Procurement (\$ in Millions)		-	-	-	-	-	-	-	-	-	-	-	-					
Net Procurement (P-1) (\$ in Millions)		123.834	26.100	-	-	-	-	-	-	-	-	-	149.934					
Plus CY Advance Procurement (\$ in Millions)		-	-	-	-	-	-	-	-	-	-	-	-					
Total Obligation Authority (\$ in Millions)		123.834	26.100	-	-	-	-	-	-	-	-	-	149.934					
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																		
Initial Spares (\$ in Millions)		-	-	-	-	-	-	-	-	-	-	-	-					
Gross/Weapon System Unit Cost (\$ in Millions)		61.917	26.100	-	-	-	-	-	-	-	-	-	49.978					
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - SBIRS Survivable Endurable Evolution (S2E2) Cost																		
Recurring Cost																		
2.5 S2E2 SMGT ^(†)	41.642	2	83.283	26.100	1	26.100	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	83.283	-	-	26.100	-	-	-	-	-	-	-	-	-	-	-	-
Non Recurring Cost																		
2.2 S2E2 Software Integration Facility (SIF)	5.200	1	5.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.3 S2E2 System Test Environment (STE)	8.000	1	8.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.4 S2E2 SMGT 1-3 DSP/GEO Stereo Capability Modification	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.6 S2E2 Integration	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	13.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - SBIRS Survivable Endurable Evolution (S2E2) Cost	-	-	96.483	-	-	26.100	-	-	-	-	-	-	-	-	-	-	-	-
Software - SBIRS Survivable Endurable Evolution (S2E2) Cost																		
Non Recurring Cost																		
2.1 S2E2 Software	6.838	4	27.351	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2017 Air Force											Date: February 2016							
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 6						P-1 Line Item Number / Title: 836720 / Space Based Ir Sensor Pgm Space						Item Number / Title [DODIC]: - / SBIRS Survivable Endurable Evolution (S2E2)						
ID Code (A=Service Ready, B=Not Service Ready) : A										MDAP/MAIS Code:								
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Subtotal: Non Recurring Cost	-	-	27.351	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Software - SBIRS Survivable Endurable Evolution (S2E2) Cost	-	-	27.351	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	61.917	2	123.834	26.100	1	26.100	-	-	-	-	-	-	-	-	-	-	-	-
Cost Elements	FY 2018			FY 2019			FY 2020			FY 2021			To Complete			Total Cost		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Hardware - SBIRS Survivable Endurable Evolution (S2E2) Cost																		
Recurring Cost																		
2.5 S2E2 SMGT ^(†)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36.461	3	109.383
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	109.383
Non Recurring Cost																		
2.2 S2E2 Software Integration Facility (SIF)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.200	1	5.200
2.3 S2E2 System Test Environment (STE)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.000	1	8.000
2.4 S2E2 SMGT 1-3 DSP/GEO Stereo Capability Modification	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.6 S2E2 Integration	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.200
Subtotal: Hardware - SBIRS Survivable Endurable Evolution (S2E2) Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	122.583
Software - SBIRS Survivable Endurable Evolution (S2E2) Cost																		
Non Recurring Cost																		
2.1 S2E2 Software	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.838	4	27.351
Subtotal: Non Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27.351
Subtotal: Software - SBIRS Survivable Endurable Evolution (S2E2) Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27.351

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Exhibit P-5, Cost Analysis: PB 2017 Air Force												Date: February 2016						
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 6						P-1 Line Item Number / Title: 836720 / Space Based Ir Sensor Pgm Space						Item Number / Title [DODIC]: - / SBIRS Survivable Endurable Evolution (S2E2)						
ID Code (A=Service Ready, B=Not Service Ready) : A										MDAP/MAIS Code:								
Cost Elements	FY 2018			FY 2019			FY 2020			FY 2021			To Complete			Total Cost		
	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
Gross/Weapon System Cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49.978	3	149.934
Remarks: Note: Starting in FY16 funding has been re-categorized from Other Procurement (3080) to Space Procurement Air Force (SPAF/3021).																		
2. SBIRS Survivable Endurable Evolution (S2E2): SBIRS capable MGS require the interim deliverables over this period as described below.																		
S2E2 Software Non-Recurring: -FY11 - Provided non-recurring engineering for S2E2 System Test Environment (STE) design and integration. -FY12 - Provided non-recurring engineering for S2E2 HEMP shelters and software integration. -FY13 - Provided non-recurring engineering for track data relay processing, and S2E2 Maintenance Ops Support suite (MOSS). -FY14 - Provided non-recurring engineering for GEO capable S2E2 upgrade. -FY16- Provides training software for Standardized Space Trainer (SPAF funded)																		
S2E2 Hardware Non-Recurring: -FY11 - Modernized the current Software Integration Facility (SIF) to include development functionality for S2E2. -FY12 - Provided non-recurring engineering for S2E2 HEMP shelters and hardware integration. -FY13 - Provided non-recurring engineering for S2E2 Maintenance Ops Support Suite (MOSS). Modernized the existing Integrated Maintenance Facility (IMF) with a sustainable MOSS for S2E2 System predeployment, maintainer training, and limited operator training. -FY14 - Provided non-recurring engineering for GEO-Capable Parabolic Dish Sub-System (PDSS) antennas -FY16- Modifies SMGTs 1-3 to add PDSS antennas and other hardware for full Stereo DSP/GEO capability; completes UGNT integration (SPAF funded)																		
S2E2 Hardware Recurring: -FY12 - Procured 1 fully tested and sustainable Mono-DSP SMGT. -FY13 - Procured 1 fully tested and sustainable Mono-DSP SMGT. -FY14 - Procures 2 fully tested and sustainable PDSSs, and fully functional GEO-upgraded SMGTs 1&2. -FY15 - Procured 1 fully tested and sustainable GEO SMGT with two PDSSs. Procures the System Test Environment (STE) for high fidelity Development, Testing & Evaluation (DT&E) and future sustainment. -FY16 - Procures 2 fully capable Stereo DSP/GEO SMGTs with two PDSSs each, as well as 9 additional PDSSs needed to field full, simultaneous DSP and SBIRS downlink capability for FOC. (SPAF funded)																		
Total S2E2 Funding for FY11-16 = \$232.5M (FY16 SPAF funding = \$81.2M) Quantity = 5 Gross Unit Cost = \$46.5M																		
(†) indicates the presence of a P-5a																		

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Exhibit P-5a, Procurement History and Planning: PB 2017 Air Force									Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 6			P-1 Line Item Number / Title: 836720 / Space Based Ir Sensor Pgm Space						Item Number / Title [DODIC]: - / SBIRS Survivable Endurable Evolution (S2E2)			
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ M)	Specs Avail Now?	Date Revision Available	RFP Issue Date
2.5 S2E2 SMGT ^(†)		2015	Lockheed Martin Space Systems / Sunnyvale, CA	SS / CPIF	AFSPC	Nov 2014	Jan 2018	1	26.100	Y		Nov 2013

(†) indicates the presence of a P-21

Remarks:

Note: Starting in FY16 funding has been re-categorized from Other Procurement (3080) to Space Procurement Air Force (SPAF/3021).

SBIRS Survivable Endurable Evolution (S2E2)

-FY14 purchased GEO-capability upgrades to SMGTs 1 & 2 (delivery Dec 2017)

-FY15 purchased GEO-capable SMGT 3 (delivery Jan 2018) and associated PDSS antennas

-FY16 purchases GEO-capable SMGTs 4&5 (delivery Jul 2020 and Sep 2020) and modifies SMGTs 1-3 to full Stereo DSP/GEO capability and associated PDSS antennas (SPAF funded)

FY16 Unit Cost Calculations (SPAF funded):

\$20M - Single SMGT cost based on contract option

\$2.5M - Additional Parabolic Dish Sub-System (PDSS) Antenna

\$2.5M - Spares

Total Unit Cost = \$25.0M

Gross Unit Cost Calculation:

S2E2 unit costs above are not representative of overall S2E2 costs due to interim deliverables. S2E2 unit costs are calculated as follows:

Total S2E2 Funding for FY11-16 = \$232.5M (FY16 SPAF funding = \$81.2M)

Quantity = 5

Gross Unit Cost = \$46.5M

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Exhibit P-21, Production Schedule: PB 2017 Air Force																							Date: February 2016										
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 6										P-1 Line Item Number / Title: 836720 / Space Based Ir Sensor Pgm Space													Item Number / Title [DODIC]: - / SBIRS Survivable Endurable Evolution (S2E2)										
Cost Elements (Units in Each)							Fiscal Year 2015													Fiscal Year 2016													B A L A N C E
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015													Calendar Year 2016													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
2.5 S2E2 SMGT																																	
Prior Years Deliveries: 2																																	
	1	2015	AF		1	-	1		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
								O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S		
								C	O	E	A	E	A	A	U	U	A	E	C	C	O	V	E	A	E	A	A	U	U	A	S		
								T	V	C	N	B	R	P	Y	N	L	G	P	T	V	C	N	B	R	P	Y	N	L	G	P		

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Exhibit P-21, Production Schedule: PB 2017 Air Force																							Date: February 2016												
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 6										P-1 Line Item Number / Title: 836720 / Space Based Ir Sensor Pgm Space													Item Number / Title [DODIC]: - / SBIRS Survivable Endurable Evolution (S2E2)												
Cost Elements (Units in Each)							Fiscal Year 2017													Fiscal Year 2018													BALANCE		
OCO	MFR#	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017													Calendar Year 2018															
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP					
2.5 S2E2 SMGT																																			
Prior Years Deliveries: 2																																			
	1	2015	AF		1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1											-
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP					

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Exhibit P-21, Production Schedule: PB 2017 Air Force									Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 3080F / 03 / 6					P-1 Line Item Number / Title: 836720 / Space Based Ir Sensor Pgm Space					Item Number / Title [DODIC]: - / SBIRS Survivable Endurable Evolution (S2E2)			
MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)								
		MSR For 2017	1-8-5 For 2017	MAX For 2017	Initial				Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	
1	Lockheed Martin Space Systems - Sunnyvale, CA	1	1	1	-	2	38	40	-	-	-	-	

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).